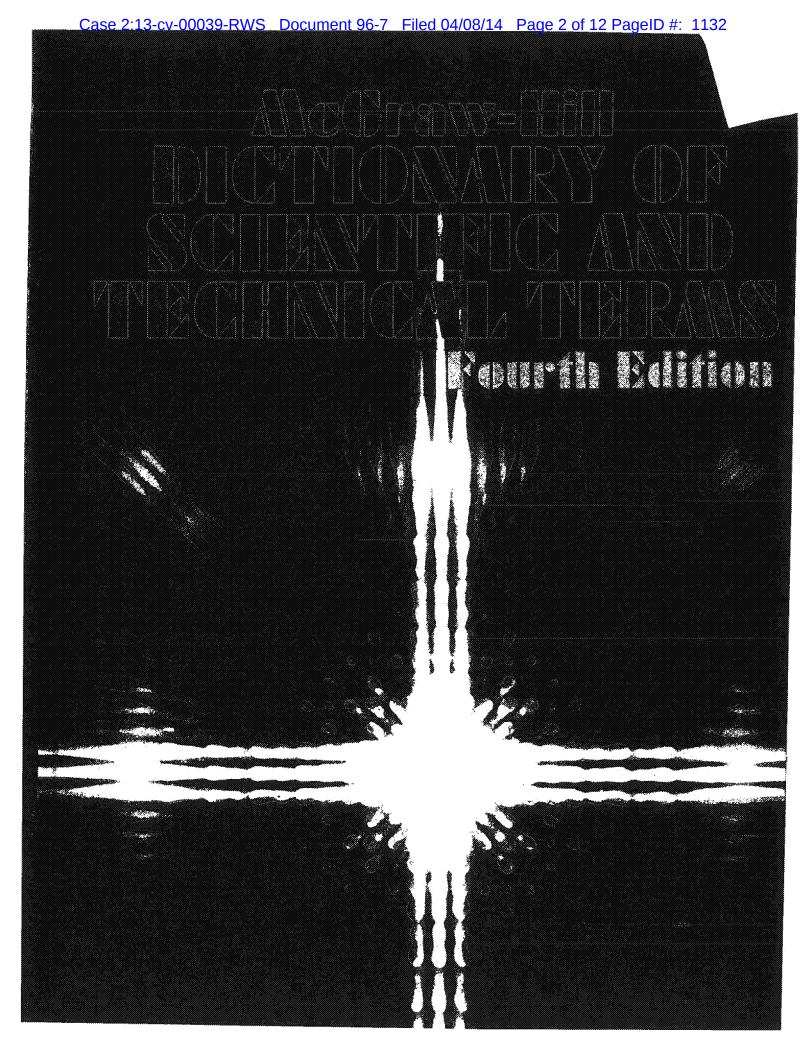
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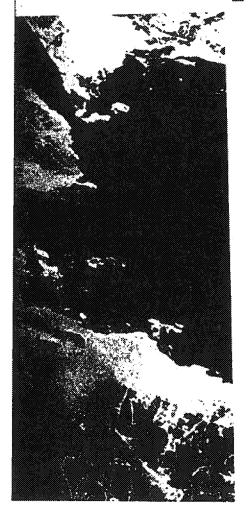


McGraw-Hill DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS

Fourth Edition

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Pourth Edition



Sybil P. Parker

EDITOR IN CHIEF

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On the title pages: Aerial photograph of the Sinai Peninsula made by Gemini spacecraft. (NASA)

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McGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS, Fourth Edition

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_{dark-trace tube}

data buffering

a binary star system; in particular, a star which causes, in an edipsing variable, a primary eclipse. { 'dārk 'stār }

delik-trace tube [ELECTR] A cathode-ray tube with a bright face that does not necessarily luminesce, on which signals are displayed as dark traces or dark blips where the potassium chloride screen is hit by the electron beam. Also known as skiatron. { 'dārk ,trās ,tūb }

Derling shower [METEOROL] A dust storm caused by cyclonic winds in the vicinity of the River Darling in Australia.

(re-usht, pil-126.)

Darlington amplifier [ELECTR] A current amplifier consisting essentially of two separate transistors and often mounted in

a single transistor housing. { 'darligton ,amplo,firor' }
('Arsonval current [ELEC] A current consisting of isolated gains of heavily damped high-frequency oscillations of high voltage and relatively low current, used in diathermy. { 'dars'

an, vól , karrant)

d'Arsonval galvanometer (ENG) A galvanometer in which a light coil of wire, suspended from thin copper or gold ribbons, rotates in the field of a permanent magnet when current is carried to it through the ribbons; the position of the coil is indicated by a mirror carried on it, which reflects a light beam onto a fixed scale. Also known as light-beam galvanometer. ('dars-on, vól gal-və'nām-əd-ər)

dart [INV 200] A small sclerotized structure ejected from the dart sac of certain snails into the body of another individual as

a stimulant before copulation. { därt }
dart configuration [AERO ENG] An aerodynamic configuration in which the control surfaces are at the tail of the vehicle.

{ 'dåri kən,fig-yə'rā-shən }

The leader which, after the first [GEOPHYS] dart leader stroke, initiates each succeeding stroke of a composite flash of lightning. Also known as continuous leader. { 'dart ,led-ar } dart sac [INV 200] A dart-forming pouch associated with the reproductive system of certain snails. { 'dan ,sak }

darwin [EVOL] A unit of evolutionary rate of change; if some dimension of a part of an animal or plant, or of the whole asimal or plant, changes from l_o to l_i over a time of l years according to the formula $I_i = I_a \exp(Ei/10^a)$, its evolutionary rate of change is equal to E darwins. {'dārwən}

Darwin-Doodson system [GEOPHYS] A method for pre-dicting tides by expressing them as sums of harmonic functions

of time. { 'dårwən 'düdsən ,sistəm } Darwin ellipsoids [ASTRON] Ellipsoidal figures of equilibnum of homogeneous bodies moving about each other in circular orbits, calculated by making certain approximations about their mutual tidal influences. ('därwən ə'lip,sóidz)

Darwin glass [GEOL] A highly siliceous, vesicular glass shaped in smooth blobs or twisted shreds, found in the Mount Darwin range in western Tasmania. Also known as queen-

slownite. ('därwən ,glas)

Darwinism [810L] The theory of the origin and perpetuation of new species based on natural selection of those offspring best adapted to their environment because of genetic variation and consequent vigor. Also known as Darwin's theory.

Darwin's finch [VERT 200] A bird of the subfamily Fringillidae; Darwin studied the variation of these birds and used his data as evidence for his theory of evolution by natural selection.

(darwinz 'finch)

Darwin's theory See Darwinism. { 'darwinz 'the-ore }

Darwinulacea [INV 200] A small superfamily of nonmarine, parthenogenetic ostracods in the suborder Podocopa. dār, win ə'lās & ə }

Darzen's procedure [ORG CHEM] Preparation of alkyl halides by refluxing a molecule of an alcohol with a molecule of thionyl chloride in the presence of a molecule of pyridine. 'där zənz prə,sē-jər }

Darzen's reaction [ORG CHEM] Condensation of aldehydes and ketones with α -haloesters to produce glycidic esters. { 'dārzənz rē,ak-shən }

Dasayatidae (VERT 200) The stingrays, a family of modern sharks in the batoid group having a narrow tail with a single poisonous spine. { ,da-sā'ad-a,dē }

Dascillidae [INV 200] The soft-bodied plant beetles, a family of coleopteran insects in the superfamily Dascilloidea.

Dascilloides [INV 200] Superfamily of coleopteran insects in the suborder Polyphaga. { ,das-a'loid-e-a }

dasheen [BOT] Colocasia esculenta. A plant in the order Arales, grown for its edible corm. { da'shën }

dashkesanite [MINERAL] (Na,K)Ca2(Fe,Mg)3(Si,Al)8-O₂₂Cl₂ A monoclinic mineral of the amphibole group consisting of a chloroaluminosilicate of sodium, potassium, iron. and magnesium. { ,dash-kə'sa,nit }

dashpot [MECH ENG] A device used to dampen and control

a motion, in which an attached piston is loosely fitted to move slowly in a cylinder containing oil. { 'dash,pāt }

Dasycladaceae [807] A family of green algae in the order Dasycladales comprising plants formed of a central stem from

which whorls of branches develop. { ,das-2-kl2'dās-2-k }
Dasycladales [807] An order of lime-encrusted marine algae in the division Chlorophyta, characterized by a thallus composed of nonseptate, highly branched tubes. klo'dā·lēz }

dasymeter [PHYS] A thin glass globe used to measure the density of gas by weighing the globe in the gas. { da'simad ar

Dasyonygidas [INV 200] A family of biting lice, order Mallophaga, that are confined to rodents of the family Proca-{ \$b,e-jin'e-3-asb, }

Dasypodidae [VERT 200] The armadillos, a family of edentate mammals in the infraorder Cingulata. { ,das-o'pāda.de l

Dasytidae [INV ZOO] An equivalent name for Melyridae. { də'sid-ə,dē }

Dasyuridae [VERT ZOO] A family of mammals in the order Marsupialia characterized by five toes on each hindfoot. { dasě'yůra,dě }

Dasyuroldes (VEXT 200) A superfamily of marsupial mammals. (das-ē-yə'roid-ē-ə)

[COMPUT SCI] 1. General term for numbers, letters, symbols, and analog quantities that serve as input for computer processing. 2. Any representations of characters or analog quantities to which meaning, if not information, may be assigned. [SCI TECH] Numerical or qualitative values derived

from scientific experiments. { 'dad's, 'dād's, or 'dād's } data acquisition {commun} The phase of data handling that begins with the sensing of variables and ends with a magnetic recording or other record of raw data; may include a complete radio telemetering link. { 'dad-o ,ak-wo,zish-on }

data acquisition computer [COMPUT SCI] A computer used to acquire and analyze data generated by instruments. { 'dada ,ak-wa,zish-an kam'pyūd-ar }

data aggregate [COMPUT SCI] The set of data items within a record. ('dad-a ,ag-ra-gat)

data analysis [COMPUT SCI] The evaluation of digital data. { ccrelan,e erbab' }

data attribute [COMPUT SCI] A characteristic of a block of data, such as the type of representation used or the length in characters. ('dad-a a-tra'byūt)

data automation [COMPUT SCI] The use of electronic, electromechanical, or mechanical equipment and associated techniques to automatically record, communicate, and process data and to present the resultant information. { ',dad-a od-a'māshan }

data bank [COMPUT SCI] A complete collection of information such as contained in automated files, a library, or a set of computer disks. ('dad-a ,bank)

data base [COMPUT SCI] A nonredundant collection of interrelated data item that can be shared and used by several different subsystems. { 'dad-a ,bās }

data base/data communication [COMPUT SCI] An advanced software product that combines a data-base management system with data communications procedures. Abbreviated DB/DC. { 'dad-a ,bas 'dad-a ka,myū-na'kā-shan }

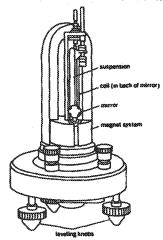
data-base machine [COMPUT SCI] A computer that handles the storage and retrieval of data into and out of a data base. { nšdz, cm zšď, crbab' }

data-base management system [COMPUT SCI] A special data-processing system, or part of a data-processing system, which aids in the storage, manipulation, reporting, management, and control of data. Abbreviated DBMS. { 'dad-a ,bas 'man-ij-mənt ,sis-təm }

data break [COMPUT SCI] A facility which permits input/ output transfers to occur without disturbing program execution { 'dad-o ,brāk } in a computer.

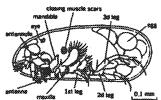
data buffering [COMPUT SCI] The temporary collection and

D'ARSONVAL GALVANOMETER



Drawing of d'Arsonval galvanometer, (From D. M. Considine, ed., Process Instruments and Control Handbook, McGraw-Hill,

DARWINULACEA



Denuinule stevensoni (Brady and Robertson), a podocopan ostracod of the Derwinulaces. In this parthenogenetic species, eggs and young are protected in a brood space behind the body. (After R. C. Moore, ed., Treatise on Invertebrate Peleontology, pt. Q, 1961)

of paygens to form linear chains of indefinite length. { 'in-0'sil'a kit }

masine [BIOCHEM] $C_{10}H_{12}N_4O_3$ A compound occurring in muscle; a hydrolysis product of inosinic acid. { 'irra, sên } inosinic acid [BIOCHEM] $C_{10}H_{13}N_4O_3P$ A nucleotide consideration of muscle, formed by dearnination of adenytic acid; on hydrolysis it yields hypoxanthine and D-ribose-5-phosphoric acid. { 'irra, sinrik 'asrad }

Insitted [ORG CHEM] C₆H₆(OH)₆·2H₂O A water-soluble alcohol often grouped with the vitamins; there are nine stereoisomers of hexahydroxycyclohexane, and the only one of biological importance is optically inactive meso-inositol, comprising white crystals, widely distributed in animals and plants; is serves as a growth factor for animals and microorganisms. {;'nās-a,tōl}

in phase [PHYS] Having waveforms that are of the same frequency and that pass through corresponding values at the same instant. { 'in ,faz }

In phase component [ELEC] The component of the phasor representing an alternating current which is parallel to the phase representing voltage. { 'in faz kom'où nant }

sor representing voltage. { 'in ,faz kəm'pönənt }
h-phase rejection See common-mode rejection. { 'in ,faz
n'jekshən }

in chase algoral See common-mode signal. { 'in ,faz 'signal }
the NKCLEO A term used to designate experiments or

equipment inside a reactor. { 'in ,pīl }
In-pile loop [NUCLEO] An experiment inserted directly in a
suclear reactor (pile) incorporating a closed circuit (loop) of
fluid usually for cooling purposes. { 'in ,pīl ,lūp }

heplace stress field See ambient stress field. { ,in ,plas 'stres ,[eld }

input [COMPUT SCI] The information that is delivered to a data-processing device from the external world, the process of delivering this data, or the equipment that performs this process. [ELECTR] 1. The power or signal fed into an electrical or electronic device. 2. The terminals to which the power or signal is applied. [SCI TECH] Those resources and other environmental factors converted by a system. { 'in,put }

input admittance [ELEC] The admittance measured across the input terminals of a four-terminal network with the output terminals short-circuited. { 'in,put ad,mit-ans } Input area [COMPUT SCI] A section of internal storage re-

input area [COMPUT SCI] A section of internal storage reserved for storage of data or instructions received from an input unit such as cards or tape. Also known as input block; input storage. { 'in.put, ere-a}

input block [COMPUT SCI] 1. A block of data read or transferred into a computer. 2. See input area. { 'in,put ,blāk } input capacitance a [ELECTR] The short-circuited transfer capacitance that exists between the input terminals and all other terminals of an electron tube (except the output terminal) connected together. { 'in,put ka'pas-ad-ans }

input data (COMPUT SCI) Data employed as input. { 'in,put ,dad->}

input equipment [COMPUT SCI] 1. The equipment used for transferring data and instructions into an automatic data-processing system. 2. The equipment by which an operator transcribes original data and instructions to a medium that may be used in an automatic data-processing system. { 'in,put i,kwipmont}

input gap (ELECTR) An interaction gap used to initiate a variation in an electron stream; in a velocity-modulated tube it is in the buncher resonator. { 'in,put,gap }

is in the buncher resonator. { 'in,put,gap } input Impedance [ELEC] The impedance across the input terminals of a four-terminal network when the output terminals are short-circuited. { 'in,put im,ped-ons } input-limited [COMPUT SCI] Pertaining to a system or oper-

input-limited [COMPUT SCI] Pertaining to a system or operation whose speed or efficiency depends mainly on the speed of input into the machine rather than the speed of the machine itself. { 'in,put |lim-ad-ad }

input magazine [COMPUT SCI] A part of a card-handling device which supplies the cards to the processing portion of the machine. Also known as magazine. { 'in,put, mag-3,zēn } input/output {COMPUT SCI} Pertaining to all equipment and activity that transfers information into or out of a computer. Abbreviated I/O. { 'in,put 'aut,put }

input/output adapter [COMPUT SCI] A circuitry which allows input/output devices to be attached directly to the central processing unit. { 'in,put 'aut,put 2,dgptar }

input/output bound [COMPUT SCI] Pertaining to a system or

condition in which the time for input and output operation exceeds other operations. Also known as input/output limited. { 'in,put 'aut,put ,baund }

input/output buffer [COMPUT SCI] An area of a computer memory used to temporarily store data and instructions transferred into and out of a computer, permitting several such transfers to take place simultaneously with processing of data. { 'in,put 'aut,put | befor }

Input/output channel [COMPUT SCI] The physical link connecting the computer to an input device or to an output device. { 'in,put 'aut,put ,chan-al }

Imput/output controller [COMPUT SCI] An independent processor which provides the data paths between input and output devices and main memory. { 'in,put 'aut,put kan,trôl-ar } Imput/output control system [COMPUT SCI] A set of flexible routines that supervise the input and output operations of a computer at the detailed machine-language level. Abbreviated IOCS. { 'in,put 'aut,put kan,trôl, sis-tam }

Input/output control unit {COMPUT SCI} The piece of hardware which controls the operation of one or more of a type of devices such as tape drives or disk drives; this unit is frequently an integral part of the input/output device itself. { 'in,put 'aut,put kən'tröl,yū-nət }

'aut,put kan'trôl,yū'nat }
input/output device [COMPUT SCI] A unit that accepts new
data, sends it into the computer for processing, receives the
results, and translates them into a usable medium. { 'in,put
'aut,put di,vis }

Input/output generation [COMPUT SCI] A procedure involved in installing an operating system on a large computer in which addresses and attributes of peripheral equipment under the computer's control are described in a language that can be read by the operating system. Abbreviated IOGEN. { 'in,put 'aut,put .jen-a,rashan }

Input/output Instruction [COMPUT SCI] An instruction in a computer program that causes transfer of data between peripheral devices and main memory, and enables the central processing unit to control the peripheral devices connected to it. { 'in,put 'aut,put in,strak-shan }

Input/output interrupt [COMPUT SCI] A technique by which the central processor needs only initiate an input/output operation and then handle other matters, while other units within the system carry out the rest of the operation. { 'in,put 'aut,put 'intra-rous }

Input/output interrupt identification [COMPUT SCI] The ascertainment of the device and channel taking part in the transfer of information into or out of a computer that causes a particular input/output interrupt, and of the status of the device and channel. { 'in.put' 'aut.put 'int-a,rapt i,dent-o-fa,k8-shan }

Input/output Interrupt Indicator [COMPUT SCI] A device which registers an input/output interrupt associated with a particular input/output channel; it can be used in input/output interrupt identification. { 'in,put 'aut,put 'int-a,rapt, in-da,kād-ar }

input/output library [COMPUT SCI] A set of programs which take over the job from the programmer of creating the required instructions to access the various peripheral devices. Also known as input/output routines. { 'in,put 'aut,put, !f, brere' } input/output limited See input/output bound. { 'in,put 'aut,put, !im-ad-ad }

Input/output order [COMPUT SCI] A procedure of transferring data between main memory and peripheral devices which is assigned to and performed by an input/output controller. { 'in,put 'aut,put ,order }

Input/output referencing [COMPUT SCI] The use of symbolic names in a computer program to indicate data on input/output devices, the actual devices allocated to the program being determined when the program is executed. { 'in,put 'aut,put ,ref-ransin}

input/output register [COMPUT SCI] Computer register that provides the transfer of information from inputs to the central computer, or from it to output equipment. { 'in,put 'aut,put ,rej'o-star }

Input/output relation [SYS ENG] The relation between two vectors whose components are the inputs (excitations, stimuli) of a system and the outputs (responses) respectively. { 'in,put 'aut,put ri,la-shan }

Input/output routines See input/output library. { 'in,pût 'aût,pût rû,tênz }

Input/output switching [COMPUT SCI] A technique in which

INOSITOL



Structural formula for inositol.

reclassify

reconnaissance

or other cause. 2. Reclaiming dry land by irrigation. { ,reklə'm&shən)

reclassify [ORD] To change the security classification of a document, piece of equipment, or the like. { re'klas-o-fi } reclinate [807] Vernation in which the upper part of the leaf

is bent down on the lower part. { 'rek-la,nat } reclined fold See recumbent fold. { ,ri'klind 'föld }

recioning relay [ELEC] Form of voltage, current, power, or other type of relay which functions to reclose a circuit. { 'rē,klôz-ig 'rē,lā }

recognition [COMPUT SCI] The act or process of identifying (or associating) an input with one of a set of possible known alternatives, as in character recognition and pattern recognition. { ,rek·ig'nish-ən }

recognition gate [COMPUT SCI] A logic circuit used to select devices identified by a binary address code. Also known as decoding gate. { ,rek-ig'nish-an ,gāt }

recognition differential [ACOUS] For a specified listener, the amount by which the signal level exceeds the noise level reaching the ear when there is a 50% probability of detection of the signal. { ,rek ig nish an ,dif a ren chal }

recoll See gun reaction. ('re,koil)
recoll adapter (ORD) A device fastened between a gun, especially an aircraft machine gun, and its mount to adapt the gun for mounting and to absorb the recoil. { 're,koil a,dap 137

recoil booster [ORD] Component of a machine gun which traps some of the gas from the barrel and acts to ensure positive recoil action when the gun is fired at angles other than the usual

horizontal. { 'rë,koil ,büs-tar }
recoil breke [oz0] That part of the recoil mechanism that
actually absorbs the energy of recoil and stops the rearward movement of the recoiling parts. { 'rē,kôil ,brāk }

recoll click [HOROL] A device in a timepiece that prevents a mainspring from being wound too tightly; uses a pawl that recoils after winding. ('rē,kóil ,klik')

recoil electron [FHYS] An electron that has been set into motion by a collision. { 'rē,kòil i,lek,trān }

recoll eacapement See anchor escapement. { 'ré,kòil i,skāpmant)

recolling mass [ORD] The mass of the recoiling parts of a weapon. { ri'koilin 'mas }

recoiling parts [ORD] Those parts of a weapon which move in recoil, usually including the tube, breech housing, breechblock assembly, and parts of the recoil mechanism. { ri'koilin 'pārts }

recoll lon spectroscopy [ATOM PHYS] A method of studying highly ionized and highly excited atomic states, in which relatively light atoms in a gaseous target are bombarded by highly ionized, fast, heavy projectiles, resulting in single collisions in which the target atoms are raised to very high states of ionization and excitation while incurring relatively small

recoil velocities. { 'rē,koil 'ī,ān ,spek'trās-ka-pē } recoilleas [ORD] Built so as to eliminate or cancel out recoil; most recoilless guns are designed to let part of the propellant gases escape to the rear. { n'kôi·ləs }

recolliese ammunition [ORD] Ammunition intended for use in recoilless rifles; provision is made in the ammunition for release of propellant gases in the manner and quantity necessary to produce the recoilless action. { ri'koi-las ,am-ya'nish-an } recolliess gun [ORD] A smooth-bore, open-breech, launcher-type artillery weapon constructed of lightweight metals and employing a muzzle-inserted propellant; it is designed

with a firing mechanism activated electrically or mechanically by remote control. { ri'koi-las 'gan } recolless rifle [ORD] A weapon consisting of a light artillery tube of the recoilless type and a very light mount. { ri'kòirləs

recoll mechanism [ORD] A hydraulic-, pneumatic-, or spring-type shock absorber that decreases the energy of the recoil gradually and so avoids violent movement of the gun.

{ 'rē,kòil ,mek-ə,niz-əm } recoll milking [NUCLEO] A technique for detecting transmutation recoil atoms knocked out of a target by heavy-ion bombardment, in which the atoms come to rest in a stream of helium or other gas which carries them through an orifice to a rough vacuum where they are adsorbed on a surface and their

radioactivity detected. { 're,koil ,milk-in } recoll Oil [MATER] A neutral, constant-viscosity oil used in hydropneumatic and hydrospring recoil systems. { 'reikoil

recoll particle [PHYS] A particle that has been set into motion by a collision or by a process involving the ejection of another { 'rē,koil ,pārd-a-kəl }

recoll pit (ORD) Pit dug near the breech of a gun to provide space for the breech when it moves backward during recoil ('re,koil,pit)

recoil velocity [ORD] Velocity in recoil of the recoiling parts of a gun. { 'rē,koil və,lās-əd-ē }

recombinant [GEN] Any new cell, individual, or molecule that is produced in the laboratory by recombinant DNA tech. nology or that arises naturally as a result of recombination. fre'kämrbarnant

recombinant DNA technology [GEN] In genetic engineering, a laboratory technique used to join deoxyribonucleic acid from different sources to produce an individual with a novel gene combination. Also known as gene splicing. { rē'kām

bonant de, en'à tek'nâloje }
recombination [GEN] 1. The occurrence of gene combinations in the progeny that differ from those of the parents as a result of independent assortment, linkage, and crossing-over. 2. The production of genetic information in which there are elements of one line of descent replaced by those of another line, or additional elements. [PHYS] The combination and resultant neutralization of particles or objects having unlike charges, such as a hole and an electron or a positive ion and a negative ion. { ,rč,kām-bə'nā-shən }

recombination coefficient [ELECTR] The rate of recombination of positive ions with electrons or negative ions in a gas. per unit volume, divided by the product of the number of positive ions per unit volume and the number of electrons or negative ions per unit volume. (,rē,kām·bɔ'nā-shən ,kô-i,fish-

recombination electroluminescence See injection electroluminescence. { ,rē,kām·bə'nā·shən i,lek-trō,lū·mə'nes-əns } recombination energy [PHYS] The energy released when two oppositely charged portions of an atom or molecule rejoin to form a neutral atom or molecule. { ,re,kam-ba'na-shan ,en arië l

recombination mosaic [GEN] A mosaic produced as the result of somatic crossing-over. { ,re,kam-bo'na-shan mô,taik }

recombination radiation [SOLID STATE] The radiation emilted in semiconductors when electrons in the conduction band recombine with holes in the valence band. (,re,kam-ba'nashan ,rådrë,å-shan) recombination velocity [ELECTR] On a semiconductor sur-

face, the ratio of the normal component of the electron (or hole) current density at the surface to the excess electron (or hole) charge density at the surface. { ,rē,kām-bo'nā-shan ٧٩,läs əde }

recompletion [PETRO ENG] Redrilling an oil well to a new producing zone (new depth) when the current zone is depleted. (,rë-kəm'plë-shan)

recomposed granite [PETR] An arkose composed of consolidated feldspathic residue that has been reworked and decomposed so slightly that upon cementation the rock resembles granite except that its grain is less even and it contains a greater ercentage of quartz. Also known as reconstructed granite. { re-kəm'pözd 'gran-ət }

recomposed rock [PETR] A rock produced in place by the cementation of the fragmental products of surface weathering for example, a recomposed granite. { ,rê-kəm'pôzd 'ršk } recomputed point of turn [NAV] An altered dead-reckoning position of an aircraft at a turning point, determined after wind has been established by drift observations made before

and after the turn. ('re-kam, pytid-ad, point av 'tam)
recon [GEN] The smallest deoxyribonucleic acid unit capable

of recombination. { 're,kin }
reconditioned carrier reception [ELECTR] Method of reception in which the carrier is separated from the sidebands to eliminate amplitude variations and noise, and is then added at an increased level to the sideband, to obtain a relatively undistorted output. { ,rë-kan' distr-and 'karë-ar ri, sep-shan } reconditioning [ENG] Restoration of an object to a good condition. [rikk-an'-distrance]

condition. (,re-kan'dishramin) recommalisaince [ENC] A mission to secure data concerning the meteorological, hydrographic, or geographic characteristics

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of a particular area. [ORD] A mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential esemy. { ri'kān ə səns }

accomalesance drone [AERO ENC] An uncrewed aircraft guided by remote control, with photographic or electronic equipment for providing information about an enemy or potential enemy. { ri'kän-ə-səns ,drön }

RECORNALISEANCE MAP [MAP] A map based on the informaion obtained in a reconnaissance survey. { ri'kān-a-sans

nsconnaissance spacecraft [AERO ENG] A satellite put into orbit about the earth and containing electronic equipment deagned to pick up and transmit back to earth information permining to activities such as military. (n'kān ərsəns 'spās,kraft }

recommalseance survey [EWG] A preliminary survey, usually executed rapidly and at relatively low cost, prior to map-ing in detail and with greater precision. { ri'kān-a-sans ging in detail and with greater precision. ,527, VB)

reconnection (ASTRON) The rejoining of solar magnetic field Enes that have been severed at a neutral region. { ,rê-ko'nek-

reconstituted mice [MATER] Mice sheets or shaped objects de by breaking up scrap natural mica, combining with a hinder, and pressing into forms suitable for use as electrical insulating material. { re'kān-sta,tūd-ad 'mī-ka }

meanstitution [COMPUT SCI] The conversion of tokens back to the keywords they represent in a programming language, before generation of the output of an interpreted program. IGGOL] The formation of new chemicals, minerals, or structures under the influence of metamorphism. { rê,kăn-stə'tüshan }

reconstructed coal [MATER] Coal formed from crushed or powdered, briquetted lignite or coal, waterproofed with a coating of pitch. { ,rë-kən'strək+təd 'kôl }

reconstructed granite See recomposed granite. kan'strak-tad 'gran-at }

reconstructed stone [LAP] A gem material made by the fasing or sintering of small particles of the genuine stone. (,rë-kən'strək-təd 'stôn }

reconstruction [SOLID STATE] A process in which atoms at the surface of a solid displace and form bands different from those existing in the bulk solid. { ,re-kən'strək-shən }

reconstructive processing [INORG CHEM] The spinning of an inorganic compound of an organic support or binder subsequently removed by oxidation or volatilization to form an sorganic polymer. { ,rê-kən'strək-tiv 'prä,ses-in }

reconstructive transformation [CRYSTAL] A type of crystal transformation that involves the breaking of either first- or second-order coordination bonds. { ,rê-kən'strəktiv ,tranz-

**Control time See deionization time. { ,rë-kən'trôl ,tîm } record [COMPUT SCI] A group of adjacent data items in a computer system, manipulated as a unit. [SCI TECH] 1. To preserve for later reproduction or reference. 2. See recording.

record block See physical record. { 'rek-ord ,blak }

record changer [ENG ACOUS] A record player that plays a number of records automatically in succession. { 'rek-ard (recinada,

record donaity See bit density; character density. ('rek-ard ,denrsadre }

Pecorder See recording instrument. { ri'kôrd-ər }
Pecord gap [COMPUT SCI] An area in a storage medium, such a magnetic tape or disk, which is devoid of information; it delimits records, and, on tupe, allows the tape to stop and start between records without loss of data. Also known as interre-cord gap (IRG). { 'rek-ord .gap }

recording [SCI TECH] 1. Any process for preserving signals, sounds, data, or other information for future reference or re-Production, such as disk recording, facsimile recording, inkvapor recording, magnetic tape or wire recording, and photographic recording. 2. The end product of a recording process, such as the recorded magnetic tape, disk, or record sheet. Also known as record. { ri'kord-in }

^{recording} balance [ANALY CHEM] An analytical balance equipped to record weight results by electromagnetic or ser-Vomotor-driven accessories. { ri'kord-in ,bal-ans }

recording-completing trunk [ELEC] Trunk for extending a connection from a local line to a toll operator, used for recording the call and for completing the toll connection. { ri'kord-in kəm'plēdig ,trənk)

recording density [COMPUT SCI] The amount of data that can be stored in a unit length of magnetic tape, usually expressed in bits per inch or characters per inch. { ri'kord-in den sad &)

recording head [ELECTR] A magnetic head used only for recording. Also known as record head. [ENG ACOUS] See cutter. { ri'kôrd-in, hed }

recording instrument [ENG] An instrument that makes a graphic or acoustic record of one or more variable quantities.

Also known as recorder. { ri'kôrd-in ,in-stra-mant } recording lamp {ELECTR} A lamp whose intensity can be varied at an audio-frequency rate, for exposing variable-density sound tracks on motion picture film and for exposing paper or film in photographic facsimile recording. { ri'kord-in ,lamp } recording level (ELECTR) Amplifier output level required to secure a satisfactory recording. { ri'kordin ,lev-əl }

recording noise (ELECTR) Noise that is introduced during a recording process. { ri'kôrd-in ,nôiz }

recording optical tracking instrument [ENG] Optical system used for recording data in connection with missile flights.

{ ri'kord-in 'apta-kal 'trak-in ,in-stra-mont }
recording rain gage (ENG) A rain gage which automatically records the amount of precipitation collected, as a function of time. Also known as pluviograph. { ri'kord in 'rān "gāj }

recording spot See picture element. { ri'kôrd-iŋ, spāt } recording storage tube {ELECTR} Type of cathode-ray tube in which the electric equivalent of an image can be stored as an electrostatic charge pattern on a storage surface; there is no visual display, but the stored information can be read out at any later time as an electric output signal. { ri'kôrd in 'stôr ij dub 1

recording thermometer See thermograph. thar.mämradar }

recording trunk [ELEC] Trunk extending from a local central office or private branch exchange to a toll office, which is used only for communications with toll operators and not for com-

pleting toll connections. { ri'kôrd-iŋ, trəŋk }
record layout [COMPUT SCI] A form showing how fields are positioned within a record, usually with information about each field. ('rek-ərd [lā,aút]

record length (comput sci) The number of characters required for all the information in a record. { 'rek-ard ,lenkth } record locking [COMPUT SCI] Action of a computer system that makes a record that is being processed by one user unavailable to other users, to prevent more than one user from attempting to update the same information simultaneously. { 'rek-ərd ,läk-in }

record mark [COMPUT SCI] A symbol that signals a record's beginning or end. { 'rek-ord ,mark }

record observation [METECROL] A type of aviation weather observation; the most complete of all such observations and usually taken at regularly specified and equal intervals (hourly, usually on the hour). Also known as hourly observation. { 'rek-ord ,åb-zər,v&-shən }

record player [ENG ACOUS] A motor-driven turntable used with a phonograph pickup to obtain audio-frequency signals from a phonograph record. { 'rek-ard ,piā-ar }

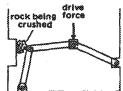
record storage mark [COMPUT SCI] A special character which appears only in the record storage unit of the card reader to limit the length of the record read into storage. { 'rek-ard 'storii märk l

record variable (COMPUTSCI) A group of related but dissimilar data items that can be worked on as a single unit. Also known as sinuctured variable. { 'rek-ard , ver-ē-a-bal }

recoupling [QUANT MECH] A transformation between eigenfunctions of total angular momentum resulting from coupling eigenfunctions of three or more angular momenta in some order, and eigenfunctions of total angular momentum resulting from coupling of the same eigenfunctions in a different order. {rê'kəp-lin}

recoverable sheer [FL MECH] Measure of the elastic content of a fluid, related to elastic recovery (mechanicallike property of elastic recoil); found in unvulcanized, unfilled natural rub ber, and certain polymer solutions, scap gels, and biological

fluids. { ri'kəvrə bəl 'shir }



Toggle mechanism used in a rock crusher; relatively small drive force causes large force to be applied to rock.

TOGGLE

TOLUENE-2,4-DIISOCYANATE

Structural formula.

toe-to-toe drilling [ENG] The drilling of vertical large-diameter blasting holes in quarries and opencast pits. { to to to 'drilin)

tofan [METEOROL] A violent spring storm common in the

mountains of Indonesia. { tô'fān }
to-from indicator [NAV] An indicator that shows whether an aircraft is flying toward or away from an omnirange station.

Also known as sense indicator. { 'tti 'fram ,in'da,kåd'ar }

toggle [ELECTR] To switch over to an alternate state, as in a flip-flop. [MECH ENG] A form of jointed mechanism for the amplification of forces.

amplification of forces. { 'tāg'el }
toggle bolt [DES ENG] A bolt having a nut with a pair of pivotal wings that close against a spring; wings open after emergence through a hole or passage in a thin or hollow wall

to fasten the unit securely. { 'tag'sl ,bôlt } toggle condition {ELECTR} Condition of a flip-flop circuit in which the internal state of the flip-flop changes from 0 to 1 or from I to 0. { 'tag-al kan, dish-an }

toggle press [MECH ENG] A mechanical press in which a toggle mecluanism actuates the slide. ('tag-əl', pres)

toggle switch (ELEC) A small switch that is operated by manipulation of a projecting lever that is combined with a springto provide a snap action for opening or closing a circuit quickly. [ELECTR] An electronically operated circuit that holds either of two states until changed. ('tag-al, swich)

tolse [CEOD] A unit of length equal to about 6.4 feet (1.95 meters); used in early geodetic surveys. { 'tôiz }

tokamak [PL PHYS] A device for confining a plasma within a toroidal chamber, which produces plasma temperatures, densities, and confinement times greater than that of any other such device; confinement is effected by a very strong externally applied toroidal field, plus a weaker poloidal field produced by a toroidally directed plasma current, and this current causes ohmic heating of the plasma. ('täk-ə,mak)

token [COMMUN] A unique grouping of bits that is transmitted as a unit in a communications network and used as a signal to notify stations in the network when they have control and are free to send information. [COMPUT SCI] 1. A distinguishable unit in a sequence of characters. 2. A single byte that is used to represent a keyword in a programming language in order to conserve storage space. { 'tō'kən }

tokenization [COMPUT SCI] The conversion of keywords of a programming language to tokens in order to conserve storage space. (,tő-kən-ə'zā-shən)

token passing protocol [COMMUN] The assignment of data communications channels to units which communicate according to a fixed priority sequence. { 'tô-kon 'pas-in 'prod-o,kól } token sharing network (COMMUN) A communications network in which all the stations are linked to a common bus and coatrol is determined by a group of bits (token) that is passed along the bus from station to station. { 'tô-kan 'sherin 'net,wark }

tolazoline hydrochloride [ORG CHEM] C₁₀H₁₂N₂·HCl Water-soluble white crystals, and melting at 173°C; used as a sympatholytic and vasodilator. Also known as priscol. { tāl'az-a,lēn 'hī-dra'klor,īd }

tolbutsmids [PHARM] $C_{12}H_{18}N_2O_3S$ A hypoglycemic drug effective when administered orally. { täl'byūd'ə, mid }

toleragen [IMMUNOL] A substance which, in appropriate dosages, produces a state of specific immunological tolerance in humans or animals. { 'tal-ərə-jən }
toloranco [DES ENG] The permissible variations in the di-

mensions of machine parts. [ENO] A permissible deviation from a specified value, expressed in actual values or more often as a percentage of the nominal value. [РНАВИ] 1. The ability of enduring or being less responsive to the influence of a drug or poison, particularly when acquired by continued use of the substance. 2. The allowable deviation from a standard, as the range of variation permitted for the content of a drug in one of its dosage forms. ('tāl-ə-rəns)

tolerance chart [DES ENG] A chart indicating graphically the sequence in which dimensions must be produced on a part so that the finished product will meet the prescribed tolerance limits. ('täl-ərəns,chārt)

tolerance dose See permissible dose. ('täl->rans ,dös) tolerance limits [DES ENG] The extreme values (upper and lower) that are permitted by the tolerance. ('tāl-ə-rəns ,lim-

tolerance unit [DES ENG] A unit of length used to express

the degree of tolerance allowed in fitting cylinders into Chathe degree of tolerance analysis in the degree of tolerance and the deficiency holes, equal, in micrometers, to $0.45~D^{1/3} + 0.001~D$ where D is the cylinder diameter in millimeters. { 'id- σ_{D} ':

yuma j ortho-tolidine [ord Chem] [C₆H₃(CH₃)NH₂] Light-Sens-tive, combustible white to reddish crystals soluble in alcohol and ether, slightly soluble in water, melts at 130°C; used as an anlytical reagent and a curing agent for urethane resins. (,or thổ 'tãi a dễn }

toll [COMMUN] 1. Charge made for a connection beyond as exchange boundary. 2. Any part of telephone plant, circuits or services for which toll charges are made. { tol } toli call [COMMUN] Telephone call to points beyond the area within which telephone calls are covered by a flat monthly rate or are charged for on a message unit basis. { 'tol, kol}' toll center [COMMUN] A telephone central office where trunks from end offices are joined to the long-distance system. and operators are present; it is a class-4 office. ['101, senter toll enrichment [NUCLEO] A proposed arrangement whereb privately owned uranium could be enriched in uranium-235 content in government facilities upon payment of a service

charge by the owners. { 'tôl in'rich mont }
Tollen's aldehyde test [ANALY CHEM] A test that uses an ammoniacal solution of silver oxides to test for aldehydes and ketones. { 'tāl-ənz 'sl-də,hīd ,test }

toll line [COMMUN] A telephone line or channel that connects different telephone exchanges. { 'tôl ,lîn }

toll office [COMMUN] A telephone central office which serves mainly to terminate and interconnect toll lines and various types of trunks. ('tôl ,òf-as)

toll television See subscription television. { 'tôl 'tel-a, vish

toll terminal loss (COMMUN) The part of the overall transmission loss on a toll connection that is attributable to the facilities from the toll center through the tributary office. to and including the subscriber's equipment. ('tôt 'tarman's

α-toluamide See α-phenylacetamide. { ;al-fə ;täl-ü'aməd } toluene [ORG CHEM] Coll, CH, A colorless, aromatic liquid derived from coal tar or from the catalytic reforming of petroleum naphthas; insoluble in water, soluble in alcohol and other. boils at 111°C; used as a chemical intermediate, for explosives. and in high-octane gasolines. Also known as methylbenzene: phenylmethane; toluol. ('tāl-yə,wēn)

toluene 2,4-dilsocyanate [ORO CHEM] CH,C,H,(NCO): A liquid (at room temperature) with a sharp, pungent odor. miscible with ether, acetone, and benzene; used to make polyurethane foams and other elastomers, and also as a protein cross-linking agent. { 'tāl-yə,wên |tū |for dī|i-sō'si-ə,nāt }

para-toluenesulfonic acid [ORG CHEM] C,H,(SO,H)(CH,) Toxic, colorless, combustible crystals soluble in water, alcohol, and ether, melts at 107°C; used in dyes and as a chemical intermediate and organic catalyst. ('par-a tāl-yə,wên;səl;fan-

toluenethiol See thiocresol. { |tal-ya, wen'thi, ol | c-toluic acid See phenylacetic acid. { ',alfa ta'lūrik 'as'ad } meta-toluic acid (ORC CHEM) C₆H₂CH₂COOH White to yellow, combustible crystals soluble in alcohol and etherslightly soluble in water, melts at 109°C; used as a chemical intermediate and base for insect repellants. Also known as meta-toluylic acid. ('med-a ta'lū-ik 'as-ad)

ortho-toluic acid [ORG CHEM] C.H.CH,COOH White. combustible crystals soluble in alcohol and chloroform. slightly soluble in water, melts at 104°C; used as a bacteriostat. Also known as ortho-toluylic acid. { 'oʻr-thō ta'liùrik 'as-9d'} para-tolule acid [ORG CHEM] C₆H₆CH₇COOH Transparational acid to the control of the cont

ent, combustible crystals soluble in alcohol and ether, slightly soluble in water, melts at 180°C; used in agricultural chemicals and as an animal feed supplement. Also known as paratologic acid. {'para ta'lü'ik 'as ad}

a-toluic aidehyde See phenylacetaldehyde. (alfo to'lirik 'airda,hīd }

meta-toluidine [ORG CHEM] CH₃C₆H₄NH₂ A combustible. colorless, toxic liquid soluble in alcohol and ether, slightly colubles, toxic liquid soluble in alcohol and ether, slightly colubles. soluble in water, boils at 203°C; used for dyes and as a chemical intermediate. { (med-a to 'lit-a,den } ortho-toluidine [ORG CHEM] CH₂C₆H₄NH₂ A light-green ortho-toluidine

light-sensitive, combustible, toxic liquid soluble in alcohol and ether, very slightly soluble in water, boils at 200°C; used for

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SOR rot [PL PATH] A mushy, watery, or slimy disintegration of plant parts caused by either fungi or bacteria. { 'soft ,rat } soft rubber [MATER] A type of rubber that has been cured by adding 0.5 to 8% sulfur, without prolonged vulcanization. { 'soft 'rab-ar }

soft sector (COMPUT SCI) A disk or drum format in which the locations of sectors are determined by control information written on the storage medium rather than by some physical means. { 'sôft 'sek-tar }

soft-shell disease [BV 200] A disease of lobsters caused by a chitinous becterium which extracts chitin from the exo-

skeleton. { 'sôft | shel di, zêz }
soft shower [Nuc PHYS] A cosmic-ray shower that cannot penetrate 6 to 8 inches (15 to 20 centimeters) of lead; consists mainly of electrons and positrons. { 'soft 'shau'er }

soft solder [MET] Solder composed of an alloy of lead and in. Also known as low melting solder. { 'sôft 'sād'ər } soft soldering [MET] Soldering with a soft solder. ('soft 'sādrərrin }

noth tube [ELECTR] 1. An x-ray tube having a vacuum of about 0.000002 atmosphere (0.202650 newton per square meedut fice ter), the remaining gas being left in intentionally to give lesspenetrating rays than those of a more completely evacuated

tube. 2. See gassy tube. { 'soft, tub }
software [COMPUT SCI] The totality of programs usable on a particular kind of computer, together with the documentation associated with a computer or program, such as manuals, diagrams, and operating instructions. { 'sof, wer }

software compatibility (comput sci) Property of two computers, with respect to a particular programming language, in which a source program from one machine in that language will compile and execute to produce acceptably similar results

in the other. { 'sôf, wer kəm, pad-ə'bil-əd-ē } software driver {comput sci} Software that is designed to handle the interaction between a computer and its peripheral equipment, changing the format of data as necessary. ('sof, wer 'driv-ar)

software engineering [COMPUT SCI] The systematic application of scientific and technological knowledge, through the medium of sound engineering principles, to the production of computer programs, and to the requirements definition, functional specification, design description, program implementation, and test methods that lead up to this code. \ 'sof, wer ,emjo'ninin)

software flexibility [COMPUT SCI] The ability of software to change easily in response to different user and system require-

ments. { 'sôf, wer ,flek-sə'bil-əd-ë }
software floating point [ССМРИТ SCI] Special routines that allow high-level programming languages to perform floating-point arithmetic on computer hardware designed for integer

arithmetic. { 'sof, wer 'flöd-ig 'point }
software Interface [COMPUT SCI] A computer language whereby computer programs can communicate with each other, and one language can call upon another for assistance. { 'sof, wer 'interfas }

software maintenance [COMPUT SCI] The correction of errors in software systems and the remedying of inadequacies in maning the software. { 'sôf, wer , mant-on, ons }

software monitor [COMPLT SCI] A system, used to evaluate the performance of computer software, that is similar to accounting packages, but can collect more data concerning usage of various components of a computer system and is usually part of the control program. { 'sôf,wer,man-ad-ar }

software multiplexing [COMPUT SCI] A procedure used in a time-sharing or multiprogrammed system in which the central processing unit, acting under control of a software algorithm. interleaves its attention between a family of programs waiting for service, in such a way that the programs appear to be processed in parallel. ('sof, wer 'mal-ti, pleks-in')

software package [COMPUT SCI] A program for performing some specific function or calculation which is useful to more than one computer user and is sufficiently well documented to be used without modification on a defined configuration of some computer system. ('sof,wer ,pak-ij)

software path length [COMPUT SCI] The number of machine-language instructions required to carry out some specified task. Also known as path length. "{ 'sof, wer 'path, lenkth} software piracy (COMPUT SCI) The process of copying commercial software without the permission of the originator. 'sôf,wer 'pirəsê }

software protection [COMPUT SCI] The use of various techniques to prevent the unsuthorized duplication of software. Also known as copy protection. { 'sôf,wer pra,tek-shan } soft waste [TEXT] The waste from yarn manufacturing prior

to spinning, including some spinning waste; usually repro-cessed in the mill. { 'soft 'wast } soft water [CHEM] Water that is free of magnesium or cal-

cium salts. { 'sôft 'wòd-ər }

soft-wired numerical control See computer numerical control. ('sôf ,wird nû'mer ə kəl kən'tröl)

soft wood [MATER] Wood from a coniferous tree. { 'soft 'wiid }

soft x-ray [ELECTROMAG] An x-ray having a comparatively long wavelength and poor penetrating power. ('soft'eks,ra') soft x-ray absorption spectroscopy [SPECT] A spectroscopic technique which is used to get information about unoccupied states above the Fermi level in a metal or about empty conduction bands in an inoculator. { 'sôft |eks,ra əb'sörp-shən spek'träs-kə-pë }

soft x-ray appearance potential spectroscopy A branch of electron spectroscopy in which a solid surface is bombarded with monochromatic electrons, and small but abrupt changes in the resulting total x-ray emission intensity are detected as the energy of the electrons is varied. Abbreviated SXAPS. { 'soft 'eks,ra ə'pirəns pə'ten-chəl spek'träs-kə-pē } sogasold [PHYS] A system of solid particles dispersed in a { 'sāg-ə,sòid }

Solum Abyssel Plain [GEOL] A basin in the North Atlantic, about 2400 fathoms (4390 meters) deep, between Newfoundland and the Mid-Atlantic Ridge. { 'sôm ə'bis əl 'plân }

Sohncke's law (PHYS) The law that the stress per unit area normal to a crystallographic plane needed to produce a fracture in a crystal is a constant characteristic of a crystalline substance. { 'zöŋˈkəz ˌlo }

soil [GEOL] 1. Unconsolidated rock material over bedrock. 2. Freely divided rock-derived material containing an admixture of organic matter and capable of supporting vegetation. { sôil }

[GEOL] The air and other gases in spaces in the soil; specifically, that which is found within the zone of aeration.

Also known as soil atmosphere. { |sôil |ser | soil atmosphere See soil air. { |sôil |at-mə,sfir | soil |blister See frost mound. { |sôil |blister | soil | s

soll-coment [MATER] A compacted mixture of soil, cement, and water used as a base course or surface for roads and airport paving. (soil si ment)

soll chemistry [GEOCHEM] The study and analysis of the inorganic and organic components and the life cycles within soils. { soil kem-astre }

soil colloid [GEOL] Colloidal complex of soils composed principally of clay and humus. { |soil |kā,lòid } soil complex | [GEOL] A mapping unit used in detailed soil

surveys; consists of two or more recognized classifications. { 'soil 'kām,pleks }

soil conservation [ECOL] Management of soil to prevent or reduce soil erosion and depletion by wind and water. { ;soil ,kän sər, vä shən)

soll creep [GEOL] The slow, steady downhill movement of soil and loose rock on a slope. Also known as surficial creep. { 'sôil ,krêp }

soll ecology [ECOL] The study of interactions among soil organisms and interactions between biotic and abiotic aspects

of the soil environment. { 'soil i,kāl'ə'jê }
soil erosion [GEOL] The detachment and movement of topsoil by the action of wind and flowing water. { 'soil i,rozh-

soil fertility [AGR] The ability of a soil to supply plant nutrients. { 'soil fer, til-ad-ē }

soll flow See solifluction. { 'soil ,flo }

soll fluction See solifluction. { 'soil ,flak-shan } soll formation See soil genesis. { 'soil ,formā-shan }

soll geneals [GEOL] The mode by which soil originates, with particular reference to processes of soil-forming factors responsible for the development of true soil from unconsolidated parent material. Also known as pedogenesis: soil formation. ('sôil jen ə səs)

soll mechanics [ENG] The application of the laws of solid